

INDIANA STATE POLICE LABORATORY DIVISION



2020 ANNUAL REPORT

"The Indiana State Police Laboratory Division values integrity, service, competency, transparency, and accountability in all of our actions."

– Major Steven D. Holland, Laboratory Division Commander

FOREWORD

Without question, our 2020 year was nothing like what any of us have ever experienced. Our Governor, Eric Holcomb, declared a public health crisis for Indiana in March in response to the coronavirus (COVID-19) pandemic. As the pandemic continued, Indiana operated in a public health crisis status with numerous restrictions placed and adjusted throughout the year. Being fluid toward accepting change became the norm.

On March 15, 2020, I received a phone call informing that one of our staff had tested positive, which was the first case within the Laboratory Division. At that point, things immediately changed for all of us. We transitioned from providing precautionary awareness, guidance, and information to taking workplace actions to best serve our staff. Due diligence was engrained into laboratory operations with social distancing, shift scheduling, as well as the many other necessary precautions that we still practice today. The attitudes and work efforts of our staff have been, and continue to be, nothing short of remarkable throughout the pandemic.

Deliberate decision making toward ensuring a safe workplace to allow for our work to continue became the norm. Newly found partnerships with the many professionals at the Indiana State Department of Health, Centers for Disease Control and Prevention, and our Governor's COVID-19 Task Force drove best practice decisions, and the guidance we received from these outstanding individuals will forever be appreciated.

The Laboratory Division was, and continues to be, considered an essential government service provider during the pandemic. It was an accomplishment that all our laboratory services continued uninterrupted in 2020, which is a testament to the character and dedication of our staff. It was a readily accepted fact that others depended upon our work during the pandemic. The services provided by the Laboratory Division in 2020 aided the criminal justice system with critical information for charging decisions, investigative leads, and outcomes that impacted people's lives.

Because of distancing, shifting, and other precautionary measures implemented to ensure a safe workplace, our efficiency did decrease, but we managed to stay fully functional. We experienced interruptions in the nation's supply chain for personal protective equipment and other analytical related supplies as the demands for these items were prioritized to COVID-19 testing laboratories. These matters also negatively impacted our production capabilities. Our contributing agencies collaborated with our staff to prioritize case submissions with more scrutiny, but our 2020 submissions received for analysis were consistent with prior years, and at a time in which we had to employ less efficient production capacities to ensure we remained operational.

A special note in this foreword is required for one of the field components within our Laboratory Division - our Crime Scene Investigations Section (CSIs). Unlike within the confines of our analytical laboratory spaces, these dedicated CSIs, by virtue of their job duties and responsibilities, did not always find themselves in circumstances in which proper social distancing could be achieved. The number of crime scenes investigated by our CSIs increased in 2020 as compared to previous years, and that fact is likely a reflection of the crime statistics that may be attributable to the circumstances surrounding the COVID-19 pandemic in society.

I cannot begin to express how much respect that I have for all our staff. It was a rare exception that I heard negative feedback about the necessary workplace safety matters we had to put in place. Instead, I received openness, understanding, and a willingness to self-sacrifice in order to accomplish a greater good.

Throughout 2020, we all had to navigate through personal and professional matters associated with the COVID-19 crisis. There is little doubt that 2020 was "different." To that end, you will find an overview of the Laboratory Division's activities during 2020 in the following sections of this, our 2020 annual report.

Major Steven D. Holland
Laboratory Division Commander

Laboratory Division

Since its inception in 1936, the mission of the Laboratory Division is “to provide client agencies accurate, reliable, and timely crime laboratory services within the resources provided, and to manage the evidence security system of the Indiana State Police Department.” Toward these ends, in 2020 the Laboratory Division processed 1,388 crime scenes, issued reports for 22,395 laboratory cases completed, conducted 444 polygraph examinations, and secured over 360,000 items of evidence.

The Laboratory Division is organized into five sections: Biology, Chemistry, Comparative Science, Crime Scene Investigations, and Management Support. The Biology Section consists of Serology, DNA, and CODIS (Combined DNA Index System). The Chemistry Section consists of the Drug Unit and the Microanalysis Unit. The Comparative Science Section consists of the Firearms Unit (including Integrated Ballistics Identification System or IBIS), the Latent Print Unit (including Automated Fingerprint Identification System or AFIS), and the Document Unit. Crime Scene Investigations Section consists of the Crime Scene Investigators and the District Evidence Clerks. Management Support Section includes the Laboratory Managers, the Regional Laboratory Evidence Clerks, and staff from the Photography, Laboratory Information Management System/Information Technology (LIMS/IT), and Polygraph Units. The last two pages of this report provides the Division’s organizational structure and contact information.

The Laboratory Division accepts evidence associated with active criminal investigations for analysis at four Regional Laboratory locations - Evansville, Fort Wayne, Indianapolis, and Lowell. The four Regional Laboratories have been accredited since 1991. The Laboratory Division is accredited by American National Standards Institute (ANSI) National Accreditation Board (ANAB).

INDIANA STATE POLICE LABORATORY DIVISION

MISSION STATEMENT

To provide client agencies accurate, reliable and timely crime laboratory services within the resources provided and to manage the evidence security system of the Indiana State Police Department.

Margaret S. D. H. H. H.

Division Commander

May 1, 2015

Date



CERTIFICATE OF ACCREDITATION

ANSI National Accreditation Board
2000 Regency Parkway, Suite 430, Cary, NC 27518

This is to certify that

Indiana State Police Laboratory Division

has been assessed by ANAB
and meets the requirements of

ISO/IEC 17025:2017

ANAB 17025:2017 Forensic Science Testing and Calibration Laboratories
Accreditation Requirements:2018

FBI Quality Assurance Standards for Forensic Testing Laboratories:2011
FBI Quality Assurance Standards for DNA Databasing Laboratories:2011

while demonstrating technical competence in the field of

FORENSIC TESTING

Refer to the accompanying Scope of Accreditation for information
regarding the types of tests to which this accreditation applies

Certificate Number: FT-0132

Valid to: 06/30/2021

Pamela L. Sale

Pamela L. Sale
Vice President, Forensics



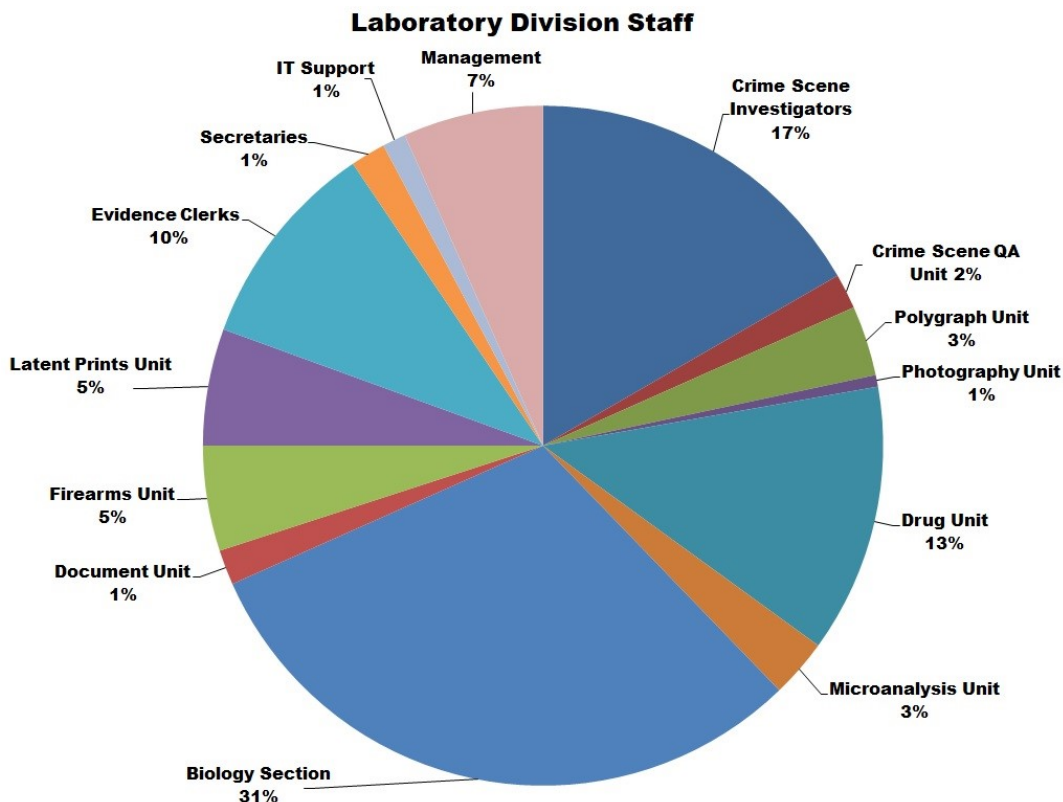
Staffing

Approximately 68% of the Forensic Scientists are certified by a forensic organization. These organizations include the American Board of Criminalists; American Board of Forensic Document Examiners; Association of Firearm and Toolmark Examiners; or International Association of Identification. All the Crime Scene Investigators are certified by the Indiana Law Enforcement Training Board.

The Laboratory Division's personnel are also members in forensic organizations, to include individuals holding office or working on committees. These organizations include:

- American Academy of Forensic Sciences
- American Association of Police Polygraphists
- American Chemical Society
- American Polygraph Association
- American Society of Crime Laboratory Directors
- American Society of Questioned Document Examiners
- American Society of Trace Evidence Examiners
- Association for Crime Scene Reconstruction
- Association of Firearm and Toolmark Examiners
- Association of Forensic Quality Assurance Managers
- Clandestine Laboratory Investigating Chemists
- Indiana Division of the International Association for Identification
- Indiana Polygraph Association
- Illinois Association of Property and Evidence Managers
- International Association for Identification
- Midwestern Association of Forensic Scientists
- Organization of Scientific Area Committees

At the end of 2020, the Laboratory Division employed 180 individuals providing analytical and support services. Over 90% of the Laboratory Division personnel are directly involved in collecting, maintaining, and/or analyzing evidence. The "Laboratory Division Staff" chart below details the distribution of the staff.



Types of Crimes and Requesting Agencies

The four Regional Laboratories provide forensic services at no charge to federal, state, county, and local agencies throughout Indiana.

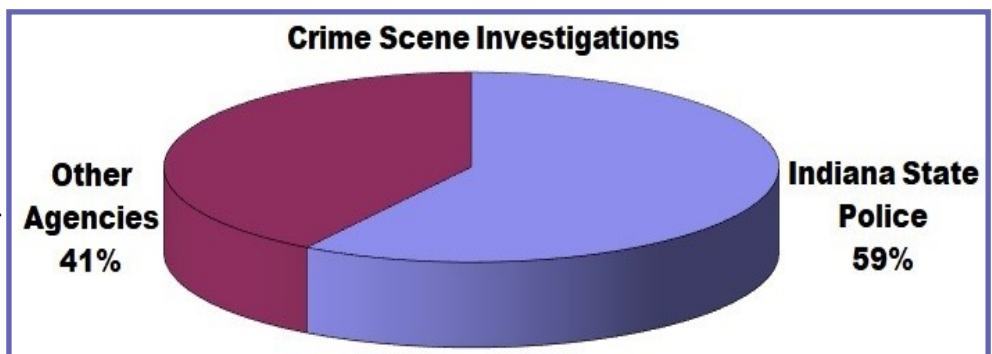
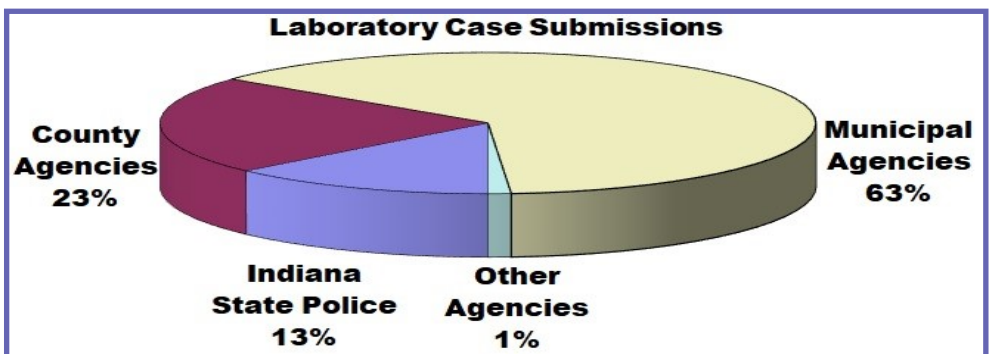
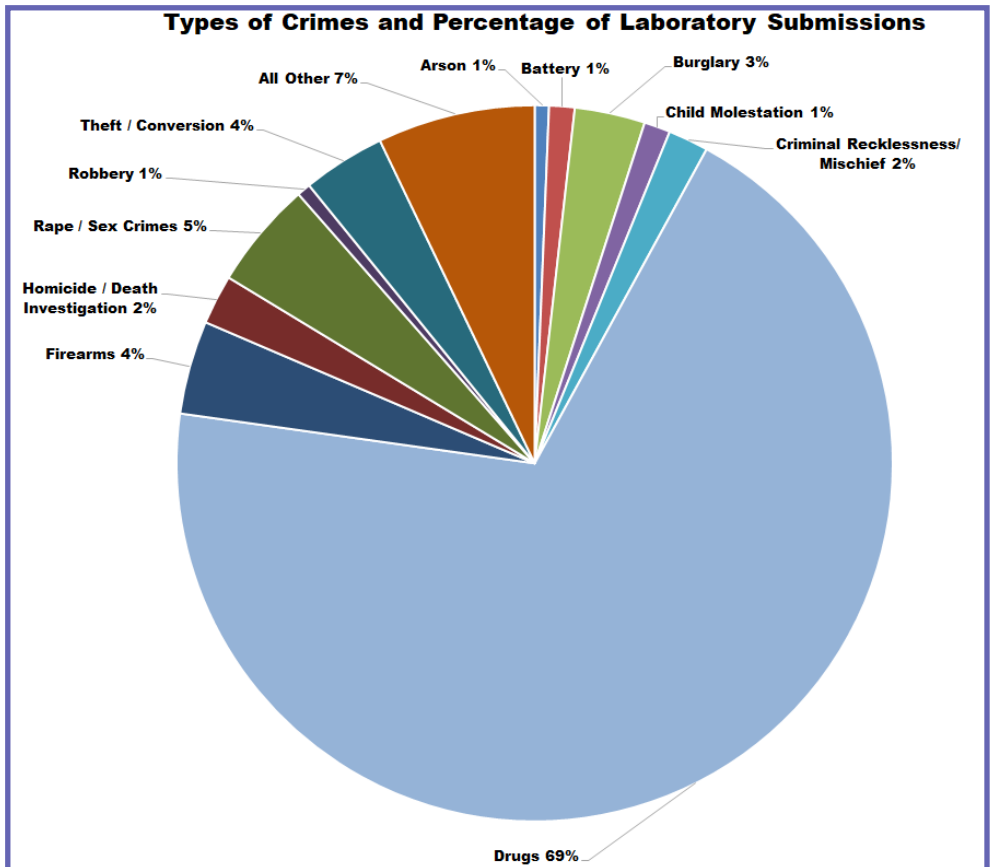
These services include tests for forensic biology/DNA and maintenance of the state's DNA database, identification of controlled substances, firearms and toolmarks, latent prints, questioned documents, and trace evidence examinations. The Laboratory Division also provides polygraph examinations and crime scene investigations upon request.

The Laboratory Division received 24,048 new cases for analysis in 2020. Crime Scene Investigators responded to and worked 843 investigations involving 1,388 different crime scenes, and the Polygraph Unit conducted 181 polygraph tests in criminal cases during 2020.

The chart to the upper right shows the types of crimes and percentages submitted to the Regional Laboratories in 2020.

As shown in the "Laboratory Case Submissions" chart, the majority of cases for analysis were submitted by municipal agencies.

The "Crime Scene Investigations" chart shows that over half of the crime scene investigations were completed for the Indiana State Police.

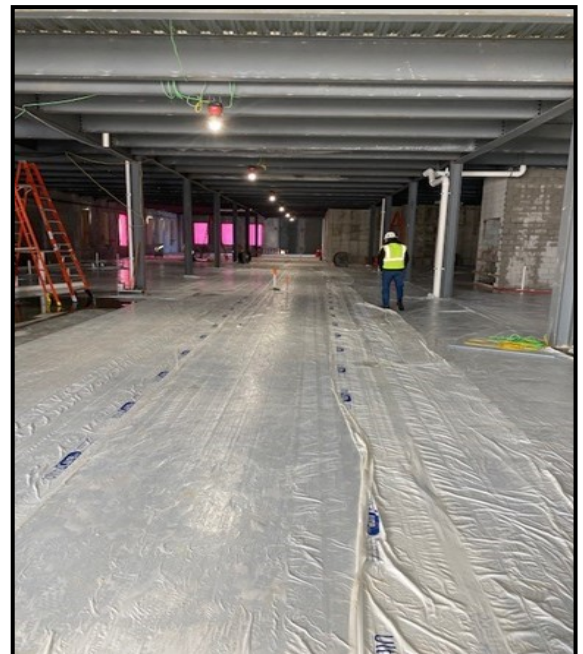
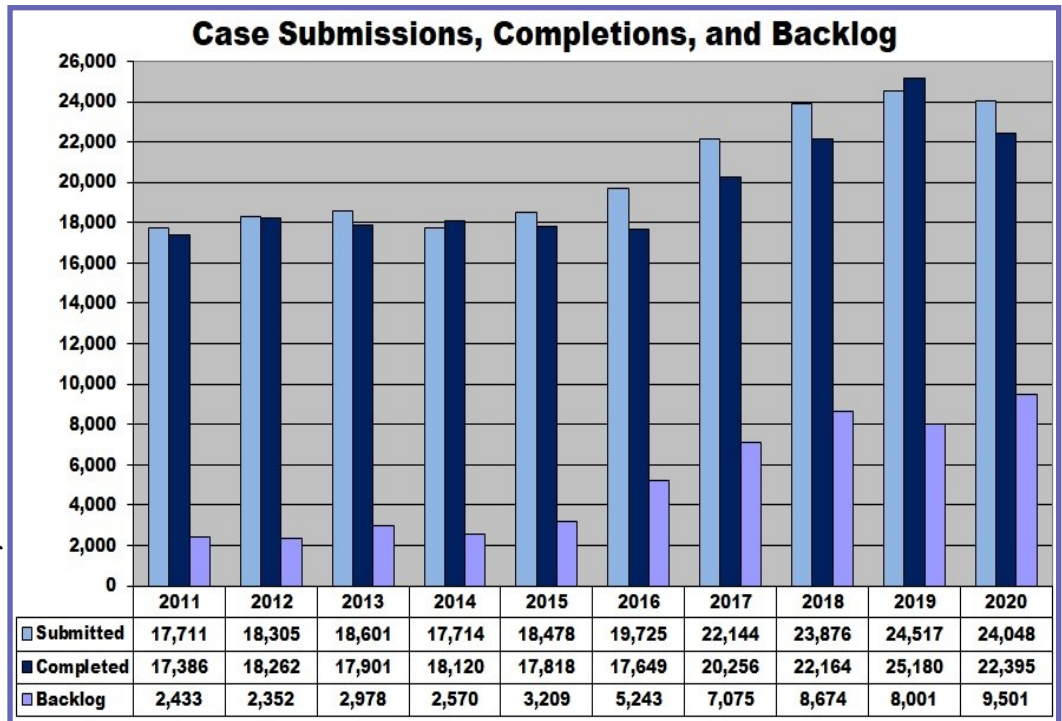


Case Submissions, Completions, & Backlog

As shown in the “Case Submissions, Completions, and Backlog” graph to the right, the Laboratory Division received 24,048 cases and completed 22,395 cases in 2020. The Laboratory Division’s goal is to have 90% of backlog cases analyzed in 45 days or less from the date of submission. The backlog is defined as any case submitted that has not been completed. The average turnaround time at the end of 2020 for completing a case was 121 days, which is down from 127 days in 2019. The aging laboratory conditions

at Evansville, Fort Wayne, and Lowell, as well as the continued increase in drugs and firearms submissions received for analysis, continued to negatively affect the turnaround times of the laboratory system.

In summer of 2017, the Indiana State Police was allocated funding to be used for capital improvement projects at Evansville, Fort Wayne, and Lowell Regional Laboratories. Construction commenced in 2020 at Fort Wayne and is scheduled to be completed in 2021 (see photos below). The start of construction at Lowell and Evansville has not yet been scheduled but plans for those facilities are continuing.



Regional Laboratories

All four of the Regional Laboratories provide analysis in Biology, Drugs, Firearms, and Latent Prints. Microanalysis (Trace) and Document examinations are only performed at the Indianapolis Regional Laboratory. The 2020 case submissions, completions, and backlog at the four Regional Laboratories are shown in the three tables below. For operational efficiency, cases are routinely transferred among Regional Laboratories.

Submissions

	<i>Evansville</i>	<i>Fort Wayne</i>	<i>Indianapolis</i>	<i>Lowell</i>	<i>Totals</i>
Biology	346	186	3,374	486	4,392
Documents	0	0	35	0	35
Drugs	1,627	3,047	8,267	1,798	14,739
Firearms	597	1,169	1,653	399	3,818
Latent Prints	240	205	251	163	859
Trace	0	0	205	0	205
Totals	2,810	4,607	13,785	2,846	24,048

Completions

	<i>Evansville</i>	<i>Fort Wayne</i>	<i>Indianapolis</i>	<i>Lowell</i>	<i>Totals</i>
Biology	339	187	3,263	495	4,284
Documents	0	0	36	0	36
Drugs	1,003	2,299	8,840	1,697	13,839*
Firearms	575	1,109	1,169	335	3,188
Latent Prints	277	188	200	167	832
Trace	0	0	216	0	216
Totals	2,194	3,783	13,724	2,694	22,395

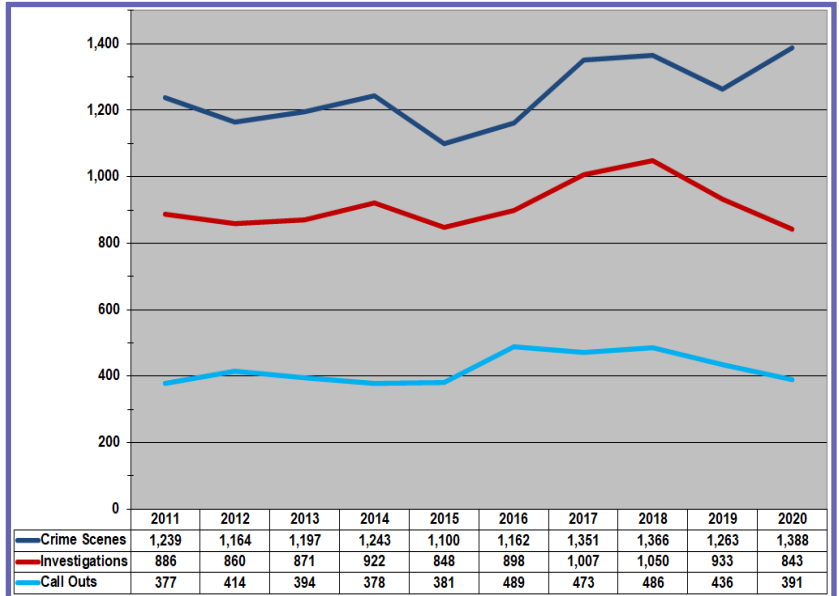
* The cases analyzed include 8,121 cases that were tested and 3,165 cases administratively withdrawn. An additional 2,553 cases were completed by outsourcing to a contracted accredited laboratory.

Backlog

	<i>Evansville</i>	<i>Fort Wayne</i>	<i>Indianapolis</i>	<i>Lowell</i>	<i>Totals</i>
Biology	47	31	731	48	857
Documents	0	0	13	0	13
Drugs	1,020	1,821	3,639	802	7,282
Firearms	71	365	611	110	1,157
Latent Prints	16	47	83	24	170
Trace	0	0	22	0	22
Totals	1,154	2,264	5,099	984	9,501

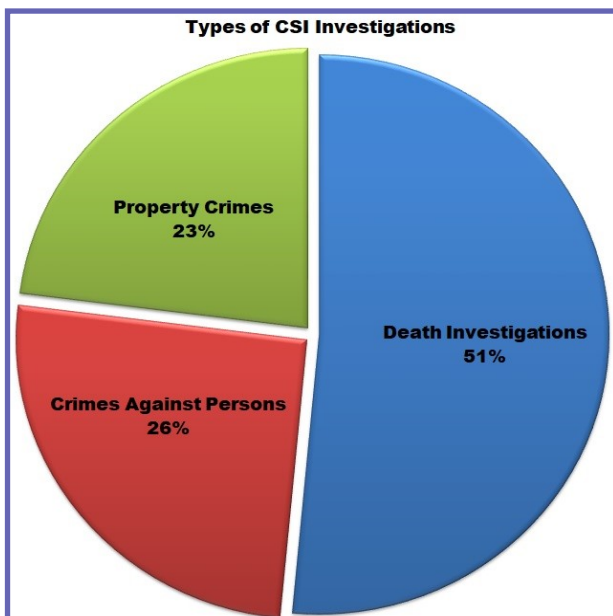
Crime Scene Investigation

Crime Scene Investigators (30 staff), when requested by local, state, and federal law enforcement agencies, respond to scenes, 24 hours a day, seven days a week anywhere in Indiana. Services provided include documenting the crime scene, identification, collection, and packaging potential evidence, reconstructing the events of the crime, bloodstain pattern analysis, and three-dimensional (3D) laser scanning. In 2020, the CSIs worked 843 investigations involving 1,388 crime scenes, and were called out 391 times outside of normal business hours. Sixty-two crime or crash scenes were documented using a 3D scanner. As shown in the chart below, over half of the scenes worked during 2020 were death investigations. During 2020, the CSIs investigated 144 shooting incident scenes that included 55 officer involved shootings. In 2020, CSIs also assisted with the distribution of personal protective equipment (PPE) and COVID-19 testing supplies throughout Indiana.



The Section is active in the forensic community by participating in the Association for Crime Scene Reconstruction (ACSR) and the Indiana Division of the International Association for Identification (IN IAI).

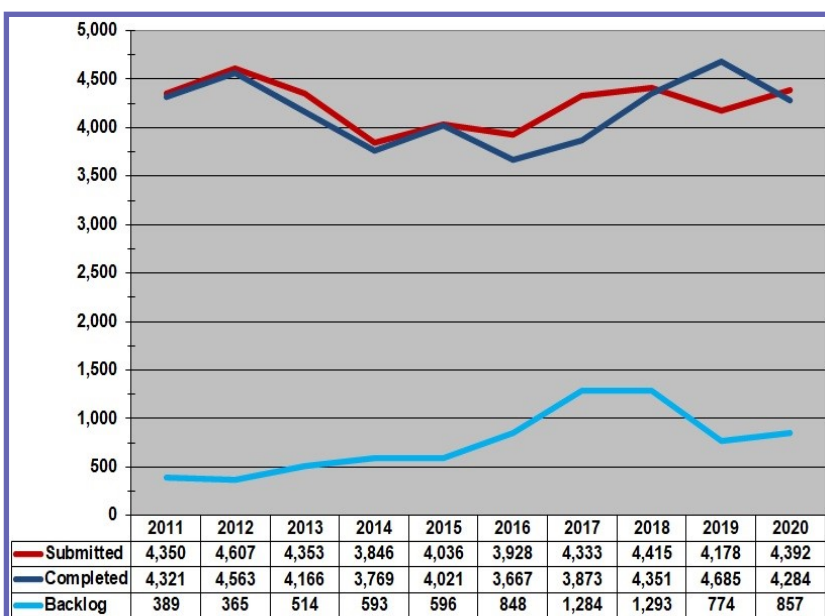
In 2020, the CSIs attended a training class on the use of new handheld Alternate Light Source (ALS) that included hands-on practical competency test exercises (see photo below). The ALS allows the CSI to evaluate the scene for the presence of body fluids, latent impressions treated with fluorescent fingerprint powder, and trace material such as fibers.



Biology Section

The Biology Section (56 staff) is organized into four casework units, plus the Combined DNA Index System (CODIS) Unit. The Section conducts analysis of biological samples including identification of body fluids (serology), nuclear and Y-STR DNA analysis, forensic relationship tests, bloodstain pattern analysis, DNA analysis of offender samples, and searches of the offender database for matching profiles. In 2020, the Section completed 4,284 cases and 4,392 cases were submitted. The backlog was 857 at the end of 2020.

In 2020, the four Indiana State Police Regional Laboratories plus the Indianapolis Marion County Forensic Services Agency entered approximately 1,500 crime scene profiles into CODIS, which is more than any previous year. As a



<i>CODIS Hit Type</i>	<i>Hits</i>
National Forensic	16
National Offender	198
State Forensic	19
State Offender	637
2020 Total	870

result of these efforts, a total of 814 separate criminal investigations were aided via CODIS during 2020 with type of hits shown in the chart to the left. To date 8,996 investigations have been aided by the Indiana CODIS program. During 2020, more than 22,000 samples from previously untested offenders were submitted to the Laboratory Division. These samples were analyzed and entered into the database with an average turnaround time of seven days from receipt to database entry.

In 2020, CODIS helped solve 13 unidentified remains cases (11 Indiana cases and one each from Illinois and North Carolina). The highest number of these identifications in any previous year was six. Analysis of one case with partial skeletal remains not only determined that it was not linked to other partial remains found nearby, but ultimately identified the remains as a person reported missing in Louisville, KY in 1991. These cases help grieving families to have some closure in dealing with missing loved ones.

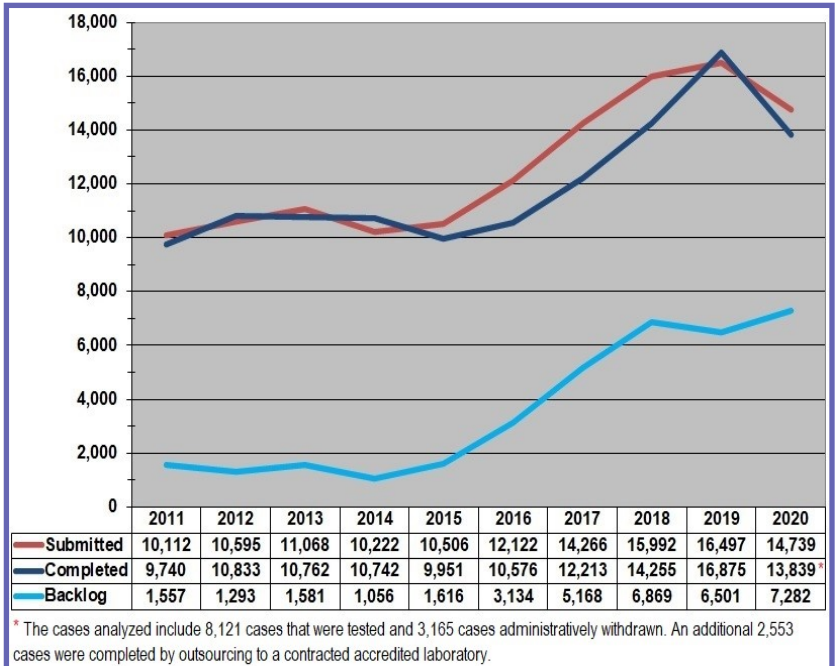
In 2020, the Biology Section purchased a MiSeq instrument (photo to the right) and initiated the validation. This new DNA sequencing technology will ultimately allow the Section to test additional DNA markers that have the potential to identify physical characteristics, determine ancestry, and generate DNA profiles for genetic genealogy which will provide additional investigative leads for unsolved cases.



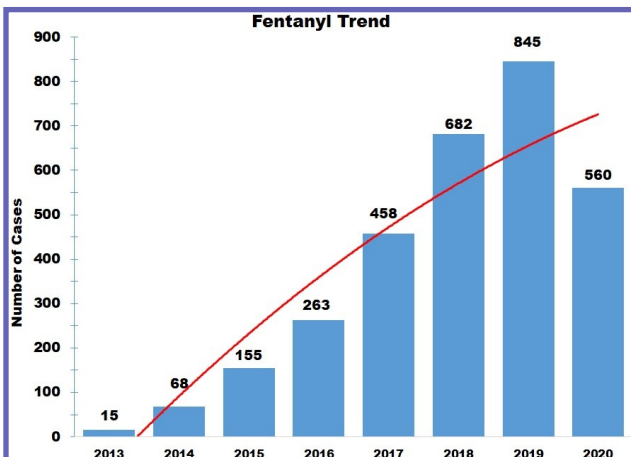
Drug Unit

The Drug Unit (23 staff) identifies controlled substances, non-controlled drugs of abuse, clandestine laboratory samples, and diluent materials found in drug preparations. During 2020, the Unit completed analysis of 8,121 cases and 3,165 cases were administratively withdrawn because those cases were adjudicated prior to testing. In addition, 2,553 cases were completed by outsourcing to a contracted accredited laboratory, which increased the total number of cases with a completion designation within the laboratory to 13,839 cases.

In 2020, the Drug Unit received 14,739 cases, which is 61% of the total cases submitted to the Laboratory Division. Although drug submissions decreased in 2020, the submissions remains high when compared to pre-2017 numbers (see “Drug Case Submissions” graph on page 11). The backlog increased in 2020 due to a decrease in cases analyzed caused by retirements of three drug analysts, as well as implementation of workplace safety measures related to COVID-19 that decreased efficiency.

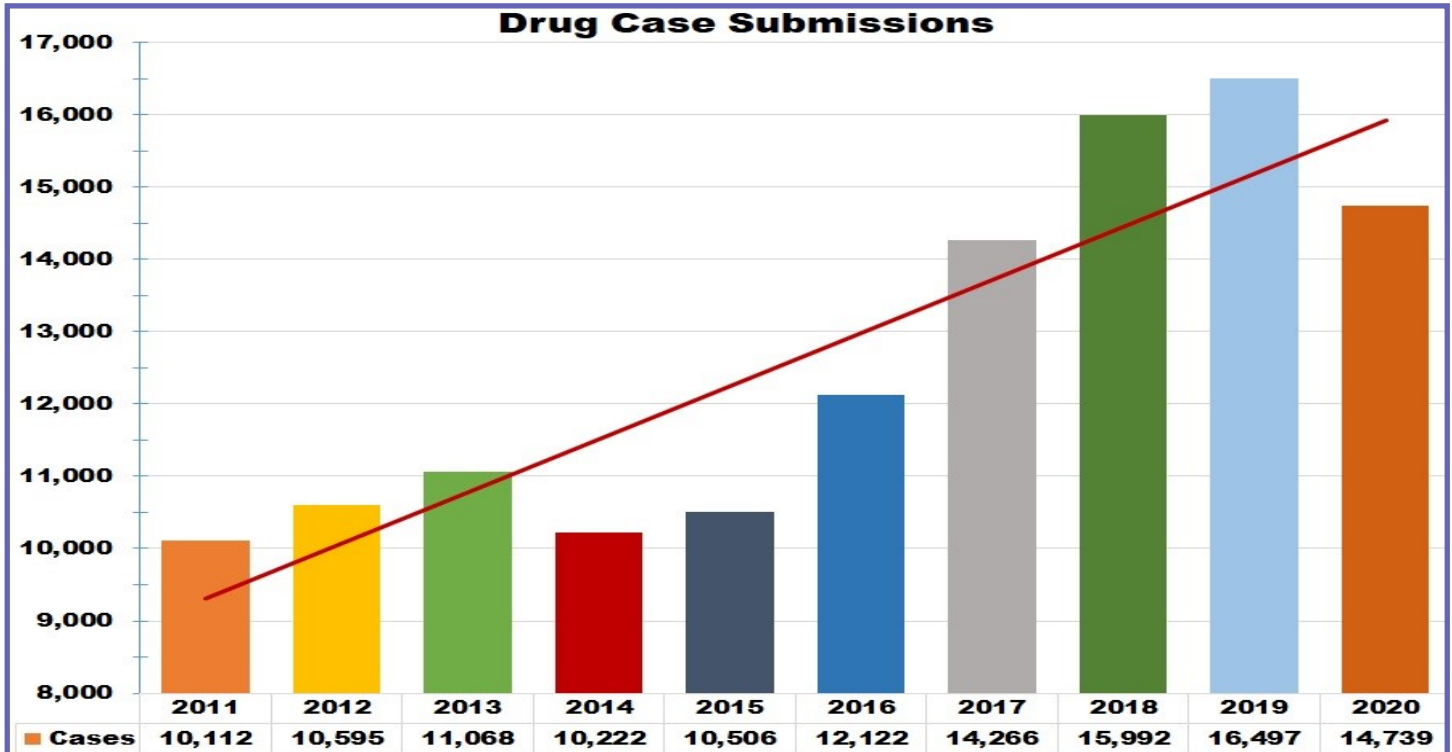


While the goal of the Laboratory Division is to complete 90% of the case submissions in 45 days, the drug backlog situation caused an increase in the Drug Unit turnaround time to an average of nearly 7 months. In response, the Laboratory Division implemented a multi-faceted approach to reduce the backlog and to ensure the increasing turnaround times for completions do not hinder the criminal justice system. First, the Indiana State Police (ISP) is moving forward with the design and construction of new laboratory facilities in Evansville, Fort Wayne, and Lowell. Construction commenced in 2020 at Fort Wayne and is scheduled to be completed in 2021. The start of construction at Lowell and Evansville has not yet been scheduled but plans for those facilities are continuing. These new facilities will allow for the hiring of additional forensic scientists. The current buildings lack adequate space to support additional staff and necessary instrumentation, which significantly limits case production capabilities. Second, beginning in January 2020, as a stop-gap measure, the ISP contracted with the Miami Valley Regional Crime Laboratory in Dayton, Ohio, to outsource a portion of the backlogged drug cases for analysis. This outsourcing project is a short term measure and will be utilized, as funding allows, until such time as the new laboratories are constructed and operational to support the additional staff needed to meet the Laboratory Division’s submission demands.

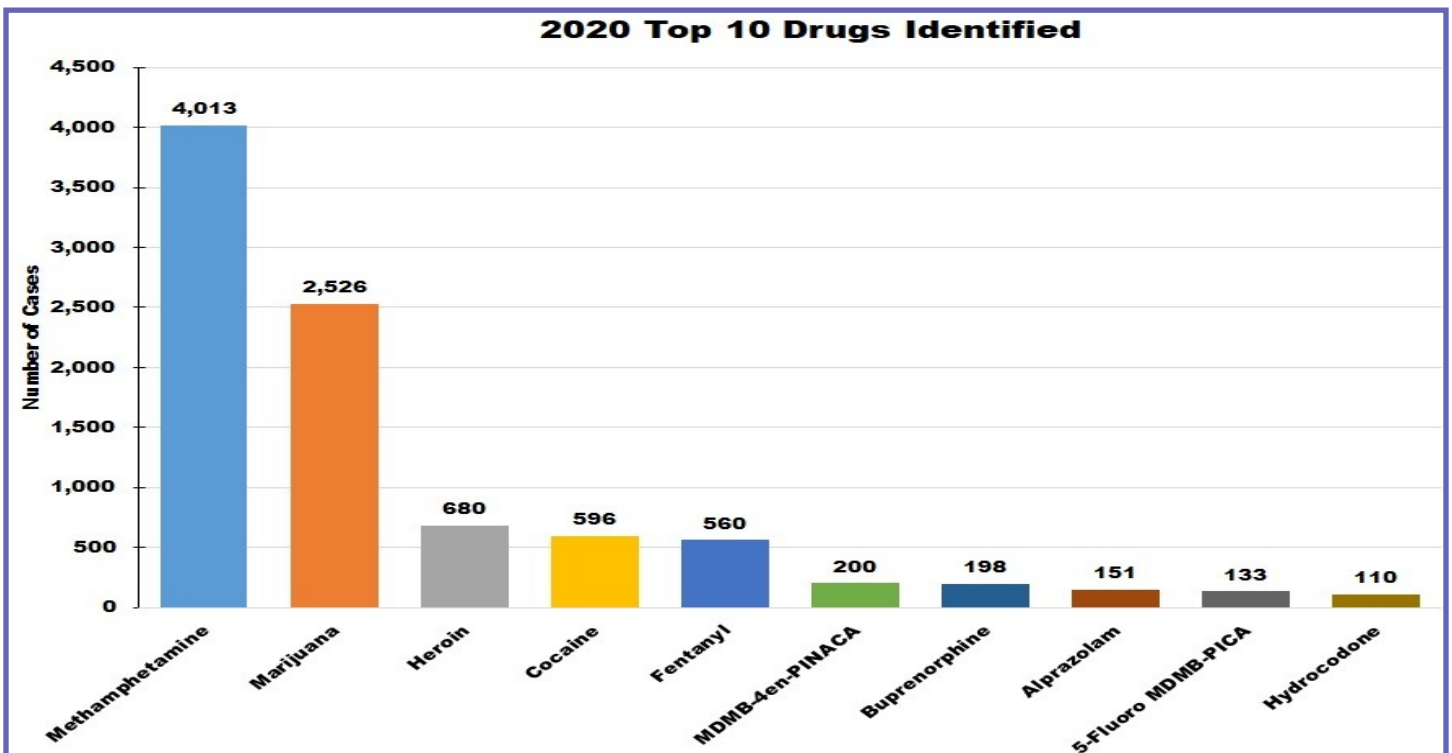


The number of Fentanyl related compounds submitted decreased from 845 in 2019 to 560 cases during 2020 (as shown in graph to the left). Fentanyl and related compounds also negatively impacted case completion due to the additional safety precautions required to analyze these types of cases.

Drug Unit



The top four drugs identified in 2020 were Methamphetamine, Marijuana, Heroin, and Cocaine, as shown in the “2020 Top 10 Drugs Identified” chart below.



Document Unit

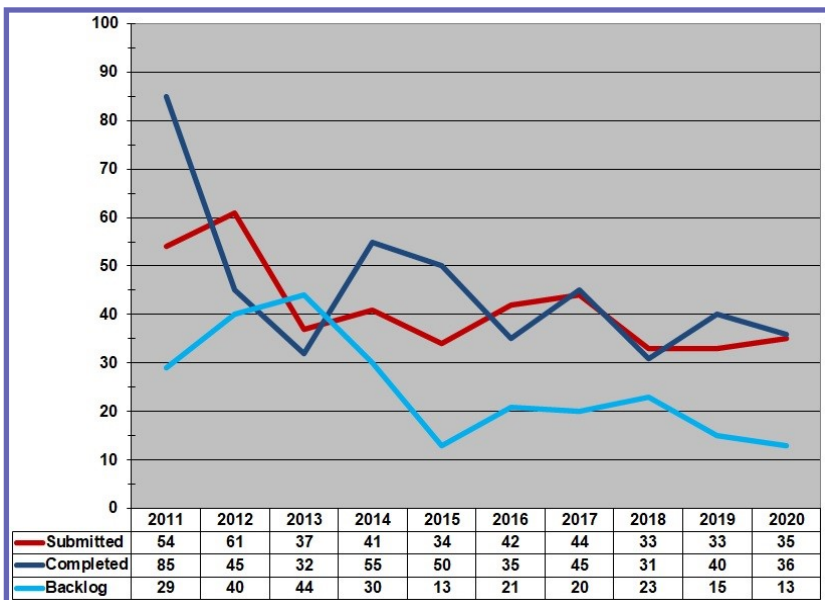
The Document Unit (3 staff) performs a range of examinations in order to answer questions about the authorship, authenticity, and background of documents. Examinations include: the comparison of handwriting, hand printing, and signatures to known writing in order to identify or eliminate a subject as the writer; the development and decipherment of indented writing impressions; physical match examinations of torn, cut, or shredded documents; the classification and comparison of inks and writing instruments; the examination of printing processes to determine source or authenticity; detection of alterations, additions, deletions, or substitutions; decipherments of altered, erased, obliterated, charred,

or water soaked documents; and the determination of the sequence of events in the creation of a document. The Unit also maintains a Robbery Note Reference Collection to search for similarities to other robbery notes.

The Unit completed 36 cases in 2020 and received 35 cases, which included ten electronic submissions. At the end of 2020 the backlog was 13. During 2020, case-work primarily focused on handwriting examinations. The types of investigations aided varied, for example: a forgery investigation of an aircraft bill of sale; numerous robberies; serial stalking; voter fraud; and witness intimidation in a death investigation.

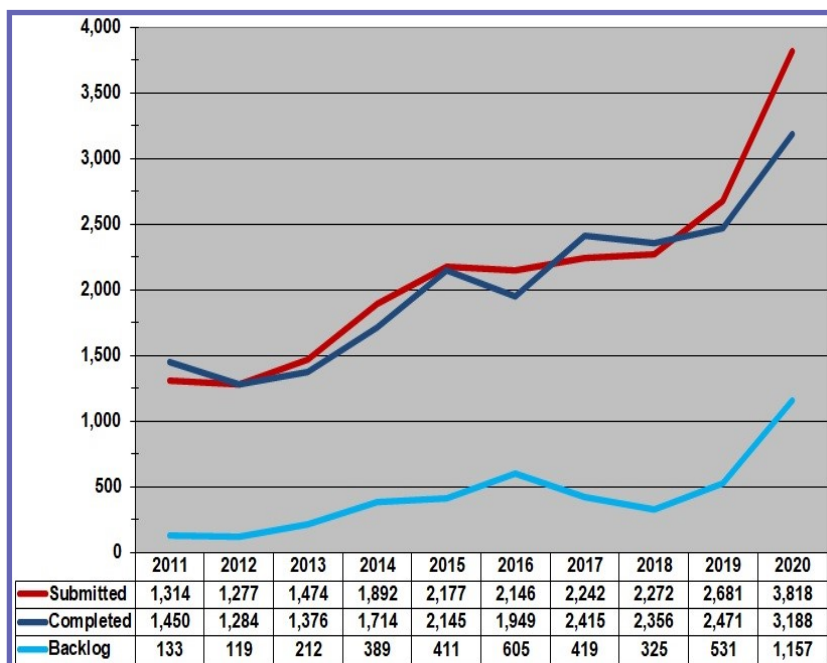
Members of the Unit are active in the forensic community by participating in the American Board of Forensic Document Examiners (ABFDE), American Society of Questioned Document Examiners (ASQDE), and the Midwestern Association of Forensic Scientists (MAFS).

The Unit maintains the ASQDE Resource Center (http://www.asqde.org/resources/resource_center.html), which is one of the largest forensic document repositories in the world. A retired ISP Document Unit Supervisor serves as the curator. In 2020, high-density mobile storage was installed for the Resource Center (see photo to right). The Laboratory Division and ASQDE agreed to keep the Resource Center at the current location until at least 2028.



Firearms Unit

The Firearms Unit (9 staff) conducts comparison and identification of fired bullets and cartridge cases. The Unit also performs characterization of recovered ammunition components, function testing of firearms, examination and comparison of toolmark evidence, Integrated Ballistics Identification System (IBIS) database entry and inquiry for unsolved firearms related cases, muzzle to target distance determination, and serial number restoration. Members of the Unit also participate on the Superintendent's Advisory Committee on Firearms and Ammunition Selection by evaluating new firearms and ammunition for future procurement by the Indiana State Police Department.



In 2020, the Firearms Unit worked 3,188 cases while receiving 3,818 cases, and had a backlog of 1,157 at the end of the year. Since 2012, firearms case submissions have tripled from 1,277 in 2012 to 3,818 in 2020. The construction of a new laboratory facility in Fort Wayne, as previously noted on page 6, will provide more analytical work space that will allow for the hiring of additional forensic scientists in the Firearms Unit to address the rising case submissions and backlog.

The Firearms Unit assisted law enforcement agencies by linking firearms related cases with 206 IBIS hits, as shown in the chart to the right. Only the Fort Wayne and Indianapolis Regional Laboratories perform IBIS examinations. Cases received at Evansville and Lowell requiring IBIS entry are transferred to Fort Wayne or Indianapolis.

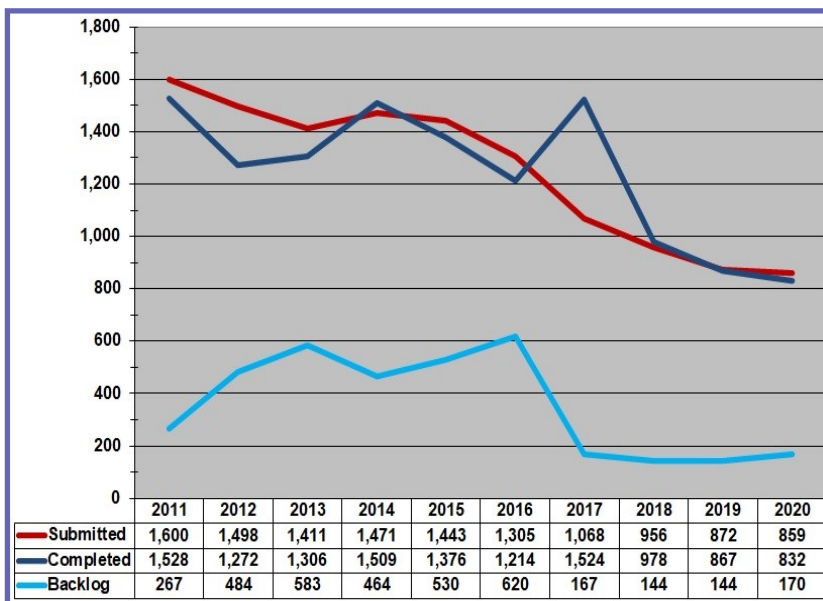
<i>Regional Laboratory</i>	<i>Hits</i>
Fort Wayne	107
Indianapolis	99
2020 Total	206

The Firearms Unit is active in the forensic firearms community with members participating in the Association of Firearm and Toolmark Examiners (AFTE), Organization of Scientific Area Committees (OSAC) Firearms and Toolmarks Subcommittee, and the National Integrated Ballistic Information Network (NIBIN) Users Conference.

During 2020, a member of the Firearms Unit participated in the creation of Firearms Process Maps, which was a collaboration between the National Institute of Standards and Technology (NIST) Forensic Science Research Program and OSAC in partnership with AFTE. The Firearms Process Maps captures details about the various procedures, methods and decision points most frequently encountered in the discipline of firearm examination and is intended to reflect current practices.

Latent Print Unit

The Latent Print Unit (10 staff) examines and compares unknown to known dermal friction ridge detail, which is found on fingers, palms, and soles of feet. Processing techniques include physical, chemical, and fluorescent development of latent print evidence. When a case is submitted without a suspect, the unknown fingerprints are entered into the state's Automated Fingerprint Identification System (AFIS) and the Federal Bureau of Investigation's Next Generation Identification (NGI) databases. Potential candidates are generated by the system, but the comparison, identification, and verification processes are performed by forensic scientists. The Unit can access all friction ridge archive files from AFIS/NGI for comparison purposes. This access streamlines the process and allows the examiners to acquire the exact exemplar needed for comparison.



2020	Hits
AFIS	46
NGI	46
Total	92

In 2020, the Unit received 859 cases that included 115 electronic submissions, worked 832 cases, and entered 437 prints into AFIS and NGI with the number of hits shown in the table to the left. The backlog was 170 cases at the end of the year. The Unit assisted with 266 print identifications to confirm Combined DNA Index System (CODIS) hits. The Unit is active in the forensic community participating in the International Association for Identification (IAI) and the Indiana Division of IAI.

In 2020, the Laboratory Division continued accepting electronic evidence submissions of digital images for latent print or document examination with 125 total submissions, an 89% increase from 2019. Electronic evidence for examination can be submitted at esubmission@isp.in.gov with a completed Request for Laboratory Examination Form, and for files too large to be emailed, a secure file sharing website can be set up by the Laboratory Division. It is anticipated that electronic submissions will continue to rise as awareness increases. Over 60% of all latent print submissions are lifts or photographs, which could be submitted electronically.

During 2020, the Latent Print Unit assisted the Internet Crimes Against Children (ICAC) Unit of the Indiana State Police with a child molestation investigation. The case began with a tip from social media of a user sharing child exploitation imagery. Through the investigation, three images which contained potential child molestation were found on a suspect's email account that included cloud storage. The digital information in the photographs was used to determine the location where the photographs were originally taken, which was the suspect's former address. A digital image containing an adult's left palm and index finger was submitted for laboratory analysis. The latent print examination identified the suspect from the photo (see photo to the right).

This is the second child sex crime case in which a digital image of a suspect's palms/fingers were identified by the Unit. Although this was not the first fingerprint identification using a digital image of fingers and/or palms, this case was the first time a latent print from a digital image was used to identify a suspect in an ICAC investigation in Indiana and the fourth time occurring in the country.



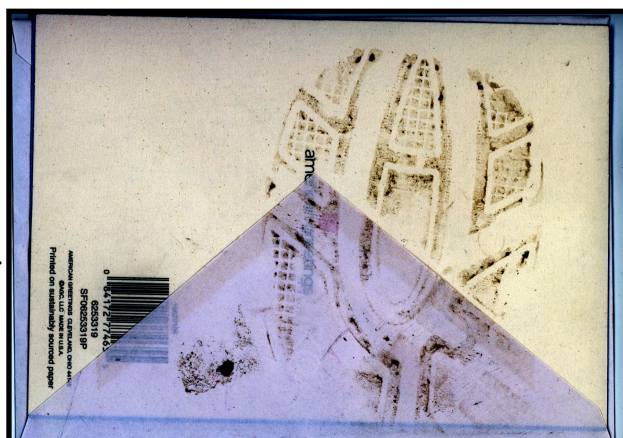
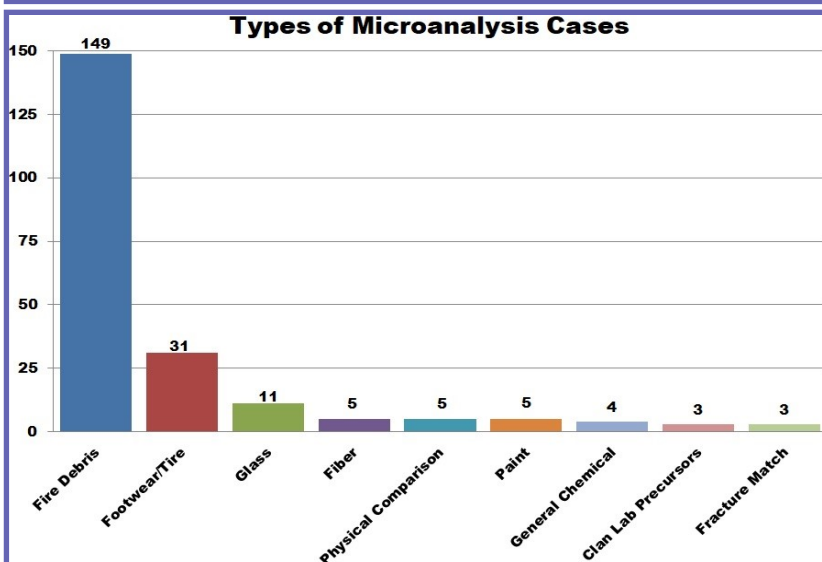
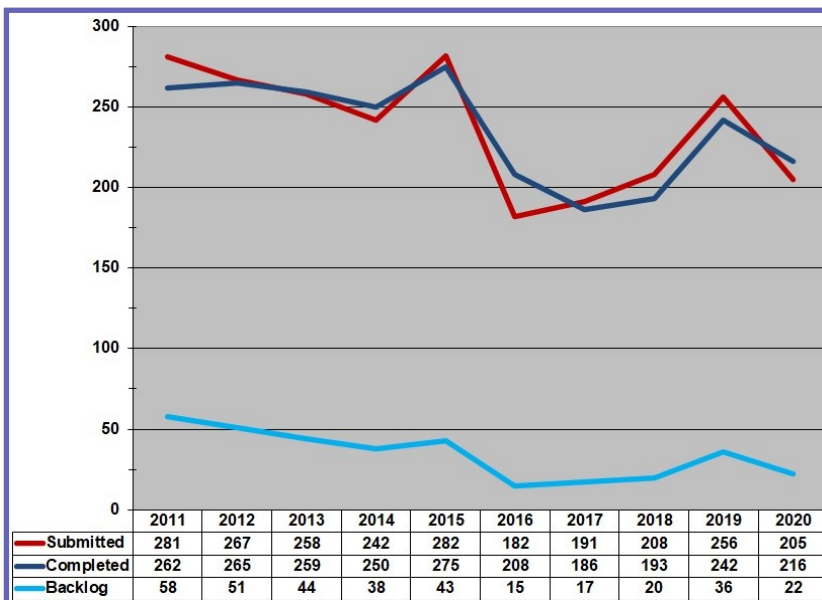
Microanalysis Unit

The Microanalysis (Trace) Unit (5 staff) performs analysis, comparison, and identification of automotive lamps, clandestine laboratory reagents, fibers, fire debris, footwear and tire impressions, glass, paints, plastics, safe insulation, tapes, and unknown materials. The Unit uses many different types of microscopes as well as analytical instrumentation to conduct examinations and comparisons in an effort to provide associative evidence. The Unit uses the SoleMate Footwear Print Identification System Footwear Print Expert (FPX). This system stores shoeprint sole patterns for reference. Footwear impressions recovered from crime scenes can be searched in FPX database to potentially identify a manufacturer of a shoe.

Footwear impressions are submitted for a search in the Unit's the FPX footwear database (the photo to the lower right is an example). When this database does not have shoes with similar class characteristics, a search of online shoe stores can be conducted. In one case, a search of the online websites found several models of a specific shoes brand with similar class characteristics, and a subsequent visit to a retail store found additional models with similar class characteristics. A list of the shoes that contained similar class characteristics was provided to the investigator.

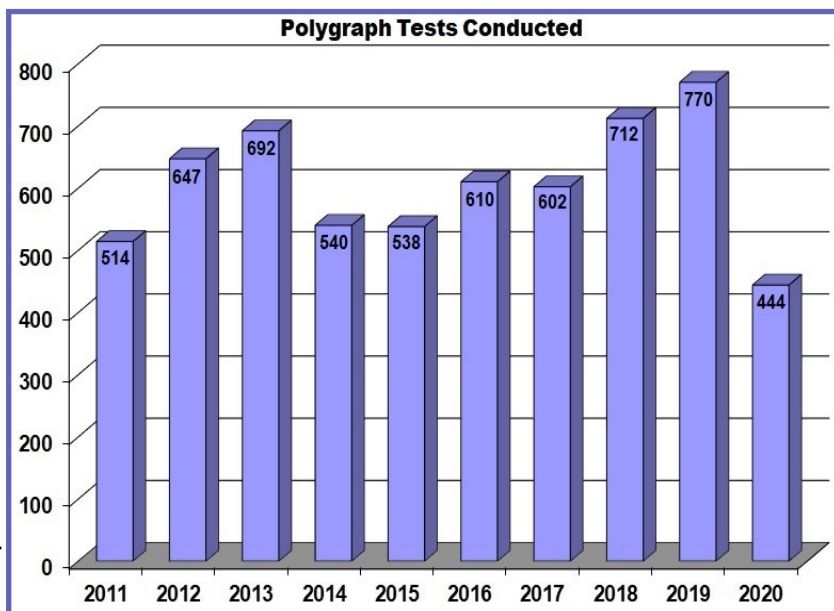
In 2020, the Unit completed 216 cases and received 205 submissions. The backlog was 22 cases at the end of the year. The majority of cases worked during the year by the Unit were fire debris cases as shown in the graph to the right.

The Microanalysis Unit participates in the American Board of Criminalistics (ABC), American Society of Trace Evidence Examiners (ASTEE), Midwestern Association of Forensic Scientists (MAFS), and Organization of Scientific Area Committees (OSAC) Trace Materials Subcommittee and the Ignitable Liquids, Explosives, & Gunshot Residue Subcommittee.

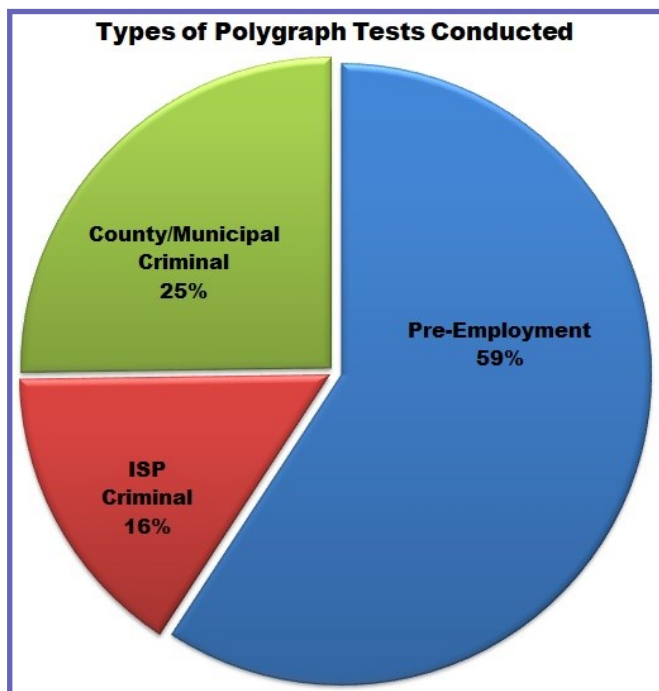


Polygraph Unit

The Polygraph Unit (6 staff) provides polygraph examinations in criminal investigations to the Indiana State Police (ISP) and other state, county, and local law enforcement agencies. The Unit also conducts pre-employment testing for Indiana State Police positions including Capitol Police, Evidence Clerk, Fusion Center employees, Motor Carrier Inspector, and Trooper. In addition to these tests, the Polygraph Unit also performs pre-employment polygraph examinations for Indiana Department of Natural Resources Law Enforcement Division and the Indiana State Excise Police. In 2020, the Polygraph Unit also helped with escorting shipments of personal protective equipment (PPE) and testing kits throughout the State of Indiana.



The term polygraph literally means many writings. The name refers to the manner in which selected physiological activities are simultaneously measured and recorded by computerized instruments. A polygraph examiner interprets the charts of the physiological changes to determine deception and non-deception.



In 2020, the Polygraph Unit conducted a total of 444 polygraph examinations, which included 181 polygraph tests in criminal cases that resulted in 14 cleared cases, 21 additional leads developed, 27 confessions obtained, and 21 significant admissions received. The Unit conducted 263 pre-employment polygraphs, which is down from 578 conducted in 2019 due to decreases in hiring during the COVID-19 pandemic. From September to November 2020, the Polygraph Unit assisted the Indianapolis Metropolitan Police Department (IMPD) by conducting 92 pre-employment polygraphs at the Indianapolis Regional Laboratory. The proportions of the tests conducted for pre-employment applicants, ISP criminal, and county/municipal agencies criminal are shown in the chart to the left.

The Unit is active in the forensic community by participating in the American Association of Police Polygraphists (AAPP), American Polygraph Association (APA), and Indiana Polygraph Association (IPA).

The Polygraph Unit worked behind the scenes in many investigations and helped conclude several unique, as well as high profile cases. During a pre-employment polygraph, an admission was received that resulted in 14 felony charges in another state against the applicant for sexual contact with a minor.

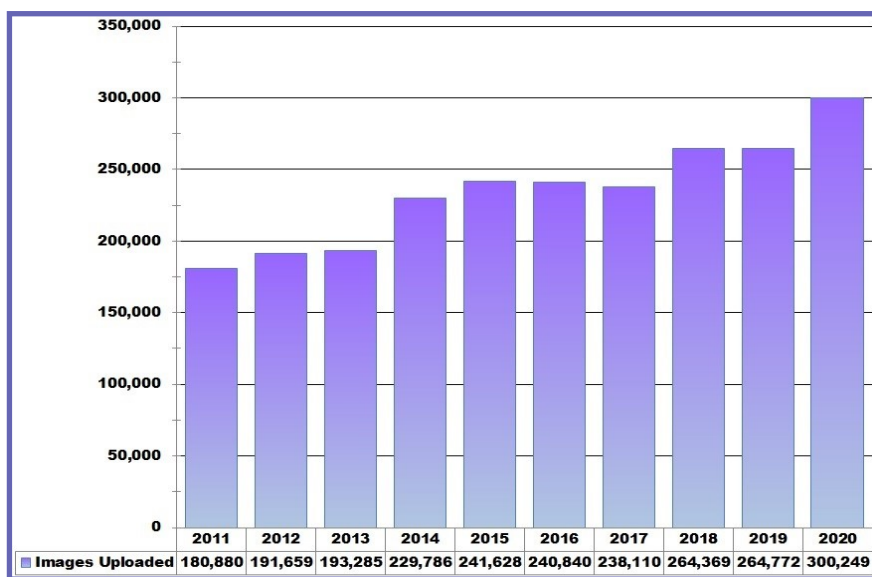
Evidence Management

Evidence Clerks (18 staff) are responsible for tracking the chain-of-custody of evidence upon receipt into the Laboratory Division's possession, organizing storage of the evidence so it can be retrieved when needed, and the release or destruction of evidence as necessary. The Evidence Clerks securely maintain evidence at the 14 Indiana State Police (ISP) Districts and the Indianapolis Regional Laboratory. The three Districts located at Evansville, Fort Wayne, and Lowell also have a Regional Laboratory. The Evidence Clerks receive evidence at the Regional Laboratories from law enforcement agencies for forensic analysis and return it when testing is complete. The Unit is active in the forensic community by participating in the Illinois Association of Property and Evidence Managers (IAPEM).

Evidence Clerks handled thousands of items of evidence throughout the year that included accepting 41,823 items from contributors at the Regional Laboratories for analysis. The Evidence Clerks received 24,112 additional items from ISP personnel for storage. In 2020, the Evidence Clerks were responsible for the storage of over 360,000 individual items of evidence and upon receiving disposition orders destroyed 26,109 items and released 3,762 items.

The Laboratory Division utilizes an electronic Request for Laboratory Examination Form. This form is dynamic with additional fields and/or pages appearing depending upon the information entered. The form is tailored to obtain only the information needed by each Unit, which reduces unnecessary, potentially contextually biasing information. The flexibility of the form allows each Unit to receive only the information needed. The Request for Laboratory Examination Form and an instructional PowerPoint® are available on the Laboratory Division's website (<http://www.in.gov/isp/labs/2332.htm>). The form is updated annually and includes an expiration date. Once expired, the form will lock to prevent the use of an obsolete version, and contributors are directed to the website to download the current version.

Photography Unit



The Photography Unit (1 staff) provides photography services for ISP investigation personnel and the ISP Public Information Office. The Unit also maintains a digital asset management system, Axon Commander®, for all Department criminal investigation and crash photos. Digital images are uploaded, cataloged, and archived for future reference from the 14 ISP Districts. In 2020, over 300,000 digital images were entered into the database, and more than 2.5 million images have been added since the inception of the photo database in 2008. The Photography Unit printed 1,769 investigative color prints and provided 493 CDs to investigators and insurance companies during 2020.

Quality Assurance & LIMS/IT Support

The **Crime Scene Investigations Quality Assurance Unit** (4 staff) administers training in crime scene investigation to local law enforcement agencies as well as Indiana State Police (ISP) Crime Scene Investigators (CSI). The Unit assists the Indiana Law Enforcement Academy (ILEA) in certification of CSIs from departments throughout Indiana. The Crime Scene Investigations Section Commander is a member of the ILEA CSI Certification Board. The Unit also provides specialized training to other agencies upon request. Members of the Unit regularly provide instruction at both the ISP Recruit Academy and the ILEA Basic Courses.

The ISP Evidence Management System Quality Assurance Program annually audits each of the 14 ISP Districts, as well as the Indianapolis Regional Laboratory. The three Districts located at Evansville, Fort Wayne, and Lowell also have a Regional Laboratory. A complete inventory/audit is conducted every two years at each of the Laboratory Division's evidence storage facilities. These audits are a comprehensive review to account for every item stored at the facilities. The Unit is also occasionally requested to audit a local law enforcement agency's evidence system. These audits are completed only when there is a criminal investigation involving internal issues with the physical evidence stored at the location.

Additionally, the Unit semi-annually assesses the work of all ISP CSIs. As part of the quality assurance program to ensure competency and properly functioning equipment, each CSI is also given a proficiency test annually under the supervision of the Unit. In 2020, the Crime Scene Investigations Quality Assurance Unit made significant contributions in maintaining crime scene accreditation including reviewing and updating procedures, and monitoring to ensure compliance with accreditation requirements.

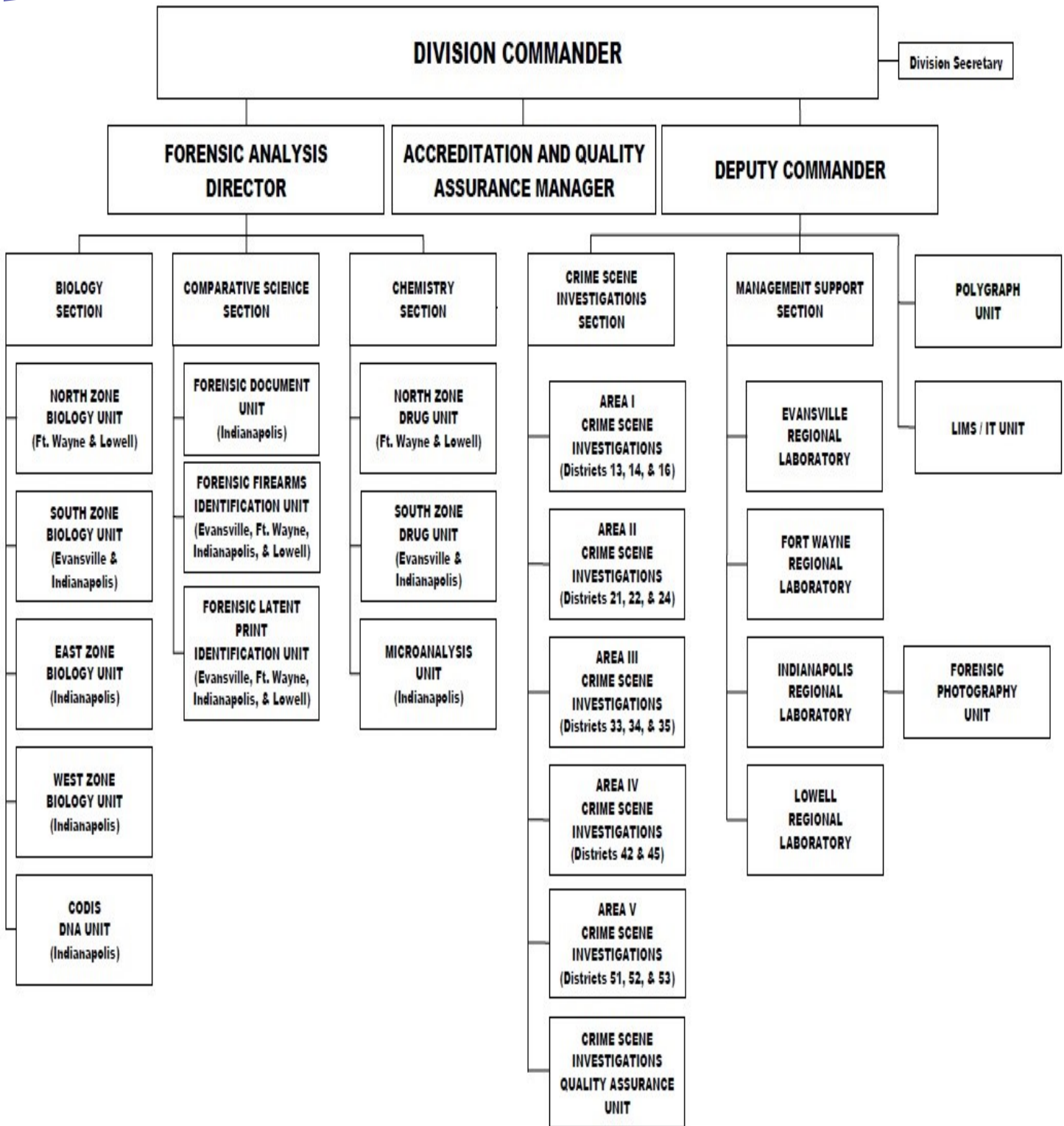
The **Laboratory Quality Assurance Unit** (1 staff) ensures compliance to laboratory and accreditation quality assurance standards. The Unit maintains updated and secure quality assurance documentation, oversees the implementation and continued corrective action compliance, ensures laboratory adherence to proficiency testing and witness critique requirements, and develops and conducts quality assurance related training for Laboratory Division staff. The Unit also assisted the Crime Scene Investigations Quality Assurance Unit with maintaining accreditation of crime scene services and the District evidence storage facilities.

The Laboratory Division is accredited by the American National Standards Institute (ANSI) National Accreditation Board (ANAB). Accreditation is a voluntary program in which a crime laboratory that participates must demonstrate that its management, personnel, operational and technical procedures, equipment, and physical facilities meet established international quality requirements. This Unit participates in the American Society for Testing and Materials-International (ASTM-I), the Association of Forensic Quality Assurance Managers (AFQAM), and the Organization of Scientific Area Committees (OSAC).

The **Laboratory LIMS/IT Unit** (2 staff) has the primary duty of maintaining and administrating the Laboratory Information Management System (LIMS). The LIMS Unit tracks all evidence currently held by the ISP Laboratory Division and stores analytical results, records, and reports. This system is integrated with the web based reporting system iResults, which provides the Certificates of Analysis (reports) to law enforcement agencies and county prosecutors.

The LIMS/IT Unit supports Laboratory Division personnel at the four Regional Laboratories and 14 District locations. The Unit provides assistance with maintaining and troubleshooting other systems used by Laboratory Division personnel, that include Combined DNA Index System (CODIS), Integrated Ballistics Identification System (IBIS), analytical instrumentation, camera surveillance, door access/security, and phone systems. The Unit also maintains and supports a digital workflow system (Mideo[®]) utilized by the Document, Latent Print, and Microanalysis Units, and the digital asset management system (Axon Commander[®]) employed by the Photo Unit.

Organizational Chart



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**Visit the Laboratory Division's website
for Evidence Protocols and Forms,
Test Methods, CODIS and Drug Stats
and Information, Training Opportunities,
and many more resources.**

<http://www.in.gov/isp/labs/>